

We claim:

1. A method of operating a dishwasher with a central control unit by measuring the turbidity of the rinsing liquid and establishing the course of the program as a function of the turbidity of the rinsing liquid, the program beginning with a pre-rinse program step, wherein that the turbidity is continuously measured in the pre-rinse program step with the lower and upper spray plane being operated in an alternating manner and the measured
5 turbidity values are associated with the respective spray plane set in operation, in that, in addition, the increase in the turbidity values is detected, in that the length of time until the increase in the turbidity values has achieved the value zero is determined, in that difference values are formed from the respective turbidity values and a degree of soiling of the rinsing
10 liquid according to quantity of soiling and solubility of the soiling on the dishes is derived from the turbidity values, the difference values and the length of time, and in that the further course of the rinse program in part program steps is established and accomplished as a function of the determined quantity of soiling and solubility of the soiling on the dishes (identical type of soiling).
2. The method according to claim 1, wherein the pre-rinse operation is accomplished initially without heating-up the rinsing liquid and is repeated and/or extended where necessary with a heating-up operation.
3. The method according to claim 1, wherein the increase in the turbidity is measured both with the lower and the upper spray plane operating, and in the difference value is derived continuously from the turbidity values of the two spray planes.

4. The method according to one of claim 1, wherein the spray arms of the alternately operating phase of the spray planes are inserted into the circulation circuit of the circulation pump for the rinsing liquid.
5. The method according to claim 4, wherein a degree of soiling for the rinsing liquid is derived from the difference value of the turbidity values of the lower and upper spray plane, which degree of soiling is used for establishing the further course of the program.
6. The method according to claim 5, wherein the rinsing liquid is retained for the further part program steps up to a preset degree of soiling.
7. The method according to claim 6, wherein the rinsing liquid is changed at least partially when the present degree of soiling is exceeded, and the new or partially supplemented rinsing liquid is used with or without a heating-up operation in the further part program sections.
8. The method according to claim 7, wherein the soiling analysis, length of time and/or turbidity values and difference values in the pre-rinse operation is repeated at least once with the new or partially supplemented rinsing liquid, with heating of the rinsing liquid.
9. The method according to one of claim 1, wherein one common turbidity sensor is used to detect the turbidity of the rinsing liquid continuously and is associated with the spray arm operating and its spray plane.

10. The method according to one of claim 1, wherein the pre-rinse operation is completed when no further increase in the turbidity is measured, and, thereafter, a first soiling analysis (VA1) is carried out, in that where the soiling is easy to clean, the transition into a part rinsing step Cleaning with No Change of Water is effected, and in that where the soiling
5 requires an average intensity to clean, the pre-rinse operation is continued and the necessary rinse time is calculated via the fuzzy set, after the expiry of this rinse time the water is changed and the part rinsing step Cleaning is carried out, whilst where the soiling requires a high degree of intensity to clean, the rinsing liquid is heated up and the necessary rinse temperature and rinse time is calculated via the fuzzy set, once the temperature of the rinsing
10 liquid is reached and the rinse time has expired, the water is changed and the beginning of the part rinsing step Cleaning is introduced.

11. The method according to claim 10, wherein the pre-rinse operation is repeated with a soiling analysis when the rinsing liquid is highly soiled.

12. The method according to claim 10, wherein the soiling of the water is also continuously controlled in the part rinsing step Cleaning and the soiling of the water is divided into easy, average or intense soiling steps, in that in the part rinsing step Cleaning the dosing of the cleanser and the heating-up of the rinsing liquid to a minimum temperature is
5 effected, in that rinsing continues until no further increase in the turbidity of the rinsing liquid is ascertained, in that, thereafter, another soiling analysis (VA2) is carried out, and in that, depending on the intensity of the part rinsing step Cleaning, and as a function of the second soiling analysis (VA2), a rinse time and an end temperature for the part rinsing step Cleaning is established via the fuzzy set.

13. The method according to claim 12, wherein the rinse time and the end temperature for the rinsing liquid in the part rinsing step Cleaning is limited in the program memory of the control unit to certain maximum values.

14. The method according to claim 12, wherein at the end of the part rinsing step Cleaning, the water is changed if the average or high degree of soiling was preset for the part rinsing step Cleaning.

15. The method according to one of claim 14, wherein a third soiling analysis (VA3) is carried out when the part rinsing step Cleaning has been accomplished with a low soiling level.

16. The method according to claim 15, wherein, where the soiling level is very low, the change of water for the next part rinsing step is cut out and in a fourth soiling analysis (VA4) the decision is made as to whether or not the rinsing liquid can be used for the Final Rinsing or whether the water has to be changed before the Final Rinsing.

17. The method according to one of claim 12, wherein an intermediate rinse operation with a minimum rinse time is carried out after the part rinsing step Cleaning, in that at the same time a fifth soiling analysis (VA5) is carried out, and in that, as a function thereof, the intermediate rinse is completed, via the fuzzy set a defined intermediate rinse moment is
5 calculated, a defined intermediate rinse time is established or further intermediate rinsing steps are carried out.

18. The method according to claim 17, wherein after the intermediate rinse operation a sieve and shaft rinsing operation is carried out if a certain limit value is exceeded in the fifth soiling analysis (VA5).
19. The method according to claim 17, wherein the water is changed between the intermediate rinse operations there are two intermediate rinse operations.
20. The method according to claim 12, wherein after the intermediate rinse operation a final rinse operation is carried out, in which the rinsing liquid is heated up to a minimum temperature, a final rinse agent is dosed and the end temperature for the final rinse operation is calculated via the fuzzy set.
21. The method according to claim 20, wherein the total power for the final rinse operation is limited to a certain measurement.
22. The method according to one of claim 12, wherein a drying operation with a minimum time and a calculated overall drying time is carried out after the final rinse operation.
23. The method according to claim 22, wherein the drying time is established as a function of the temperature of the final rinsing liquid, a short drying time being selected with a high final rinse temperature and a long drying time being selected with a low final rinse temperature.